

EXHIBIT D

Grant Obligations No. 69A3552344814 and No. 69A3552348319

**UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
OFFICE OF THE ASSISTANT SECRETARY FOR RESEARCH AND TECHNOLOGY**

**UNIVERSITY TRANSPORTATION CENTERS PROGRAM
UMBRELLA GRANT AGREEMENT FOR A NATIONAL UTC**

Upon execution by the Grant Recipient named in the Notification of Award below, the U.S. Department of Transportation (US DOT), Office of the Assistant Secretary for Research and Technology (OST-R) and the Grant Recipient have entered into a Grant. The Grant is for the purpose described in the Notification of Award below. In addition to this Umbrella Grant Agreement and its two Obligor Documents, the following documents are attached or are incorporated by reference and made part of the Grant and apply to both obligations: (1) *Grant Deliverables and Reporting Requirements for 2023 University Transportation Centers*, dated June 2023, (2) *General Provisions of Grants for 2023 University Transportation Centers*, dated June 2023, and (3) the Grant Recipient's Application submitted for this Grant.

Any change to the Grant documents that alters the total amount of Federal funds awarded requires a formal Modification of the Umbrella Grant Agreement signed by the Assistant Secretary for Research and Technology or his or her delegate. No-cost modifications to the Grant and any written approvals required under the Grant shall be signed by the designated OST-R Grant Manager.

NOTIFICATION OF AWARD

THE U.S. DEPARTMENT OF TRANSPORTATION, OFFICE OF THE ASSISTANT SECRETARY FOR RESEARCH AND TECHNOLOGY (OST-R) HEREBY AWARDS FUNDS TOWARD A FEDERAL GRANT AS FOLLOWS:

Grant Recipient: The Regents of the University of California (Davis)

Unique Entity Identifier (UEI): TX2DAGQPENZ5

City, State, Zip Code: Davis, California, 95618

Citation of Statute Authorizing Award: 49 U.S.C. § 5505

Assistance Listing Number/Identification as R&D Award: 20.701/award is considered as R&D

Purpose of Grant: To conduct a multidisciplinary program of transportation research, education, and technology transfer through a National University Transportation Center (UTC) headquartered at the University of California Davis and focused on Preserving the Environment.

Purpose of This Umbrella Grant Agreement: To provide funding from the US DOT for a National University Transportation Center headquartered at the University of California Davis and to document terms of the Grant and to document the Grant Recipient's acceptance of the funding and agreement to the terms of the Grant. While this Grant is being awarded in two obligations, it is considered collectively to be one Grant for the purposes of all statutory, regulatory, and programmatic requirements.

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Maximum Federal Funds Approved To Date By This Umbrella Grant Agreement: \$4,000,000

- **\$3,686,855 under Obligor Document 69A3552344814**
- **\$ 313,145 under Obligor Document 69A3552348319**

At the time of award, subject to availability of funds and to the Grant Recipient's compliance with deliverables due to date, OST-R expects to award four additional increments of funding as Modifications to this Umbrella Grant Agreement at approximately annual intervals from, and in amounts similar to, this initial award, with the Termination Date (stated above) remaining the same after each of these additional incremental awards. Similar to this initial award, the additional increments may be split into two separate obligations.

Matching-Fund Requirement: A non-Federal match of not less than 100% of the Federal funds paid by the Grantor to the Grant Recipient under this Grant is required as a condition of the Grant. Please see page 8 of the *General Provisions of Grants for 2023 University Transportation Centers*, dated June 2023, for information regarding certain allowable Federal funds that are authorized by statute to be used as match on UTC Grants. For this Grant that is being awarded in two funded parts, compliance with the match requirement will be assessed in total by adding together the match amounts reported for the two affiliated Obligor Documents (numbers noted in header and below); it is not necessary to demonstrate full match for each of the two Obligor Documents separately though the Grant Recipient may do so if preferred for audit purposes.

Statement of Work: The Application that the Grant Recipient submitted for this Grant under the UTC Program's FY 2022 Notice of Funding Opportunity serves as a general description of work to be done under the Grant. The Grant Recipient shall notify the OST-R Grant Manager immediately at any time during the Grant if circumstances arise that will significantly affect the Grant Recipient's ability to fulfill the intent of its Application.

Deliverables/Reporting Requirements: For this Grant that is being awarded as two separate obligations, a single set of reporting requirements reflecting the funds provided through the two affiliated Obligor Documents is encouraged wherever applicable in order to reduce the reporting burden. For the Federal Financial Report SF425, the Grant Recipient may either combine financial reporting on the two Obligor Documents onto a single SF425 each quarter or may report separately if preferred for audit purposes.

Review of Budget: The designated Grant Manager will review the budget submitted by the Grant Recipient in the Application and will ask for revisions or clarifications as needed. A single budget is anticipated for the two combined obligations unless the Grant Recipient prefers to do otherwise for audit purposes.

Pre-Incurred Costs: The Grant Recipient may request approval for costs incurred from the February 21, 2023, date when the intent to award this Grant was publicly announced and the Effective Date on this Umbrella Grant Agreement. Approval may only be requested for costs that are necessary to the conduct of the grant as laid out in the Grant Recipient's Application (see Statement of Work above), are consistent with 2 CFR 200.458, and are allowable under Federal grant regulations 2 CFR Part 200.

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Initial Meeting with Grant Manager: The OST-R Grant Manager on this Grant will contact the Grant Recipient to schedule an initial informational meeting, either held at the Grant Recipient's campus or conducted by videoconference as OST-R deems appropriate, during the first six months of the Grant. This meeting will be for the purpose of establishing working relationships between OST-R staff and Grant Recipient staff; ensuring that, at the outset of the Grant, the Grant Recipient understands the reporting and other requirements; and conveying to the Grant Recipient best practices for operating a University Transportation Center grant.

Termination Date: May 31, 2029. This is the last date on which the Grant Recipient may incur costs under this Umbrella Grant Agreement and any subsequent Modifications to the Umbrella Grant Agreement.

The funding for this Grant is being awarded in two parts due to requirements for use of the funding that supports it. As a result, this Umbrella Grant Agreement requests execution by the Grant Recipient of two Obligor Documents entitled No. 69A3552344814 and No. 69A3552348319; both Obligor Documents need to be executed by the Grant Recipient and returned as noted below, and the Grant Recipient should set up separate financial accounts for the two Obligor Documents and will need to invoice against the two separately. Future-year funding is expected to be added to both Obligor Documents, so the same termination date stated above should be used for both financial accounts.



ROBERT C. HAMPSHIRE, PhD
DEPUTY ASSISTANT SECRETARY
FOR RESEARCH AND TECHNOLOGY

June 1, 2023
EFFECTIVE DATE

Grant Obligations No. 69A3552344814 and No. 69A3552348319

EXECUTION OF THIS UMBRELLA GRANT AGREEMENT THROUGH ITS TWO OBLIGATING DOCUMENTS

OST-R is providing this Umbrella Grant Agreement electronically via e-mail. The person officially authorized by the Grant Recipient to accept OST-R's award of financial assistance should execute the two Obligating Documents of this Umbrella Grant Agreement and return them electronically via e-mail to:

Robin Kline, Grant Manager
University Transportation Centers Program (RDT-10)
Office of the Assistant Secretary for Research and Technology
U.S. Department of Transportation
1200 New Jersey Avenue, SE, Work Station E33-466
Washington, DC 20590-0001
phone 202/579-4481
e-mail robin.kline@dot.gov

OST-R may withdraw its obligation to provide this financial assistance if the Umbrella Grant Agreement is not executed within ninety (90) days after the Government's signature date. OST-R will not honor requests for payment under this Umbrella Grant Agreement until it receives the two fully executed Obligating Documents of this Umbrella Grant Agreement electronically via e-mail.

By executing the two Obligating Documents of this Umbrella Grant Agreement, the Grant Recipient agrees to comply with the Grant Agreement and the following documents that are attached or incorporated by reference:

- (1) *Grant Deliverables and Reporting Requirements for 2023 University Transportation Centers*, dated June 2023,
- (2) *General Provisions of Grants for 2023 University Transportation Centers*, dated June 2023, and
- (3) the Grant Recipient's Application submitted for this Grant.

Grant Obligations No. 69A3552344814 and No. 69A3552348319

Obligating Document 69A3552344814 Awarding \$3,686,855

By executing this Obligating Document of the University Transportation Centers Program Umbrella Grant Agreement for a National UTC, the Grant Recipient:

- does hereby ratify and adopt, under penalties or perjury, all statements, representations, warranties, covenants, and materials submitted by it, and
- does hereby accept OST-R's award of Federal financial assistance and
- does hereby agree that all applicable terms and requirements of this University Transportation Centers Program Umbrella Grant Agreement for a National UTC shall apply to this Obligating Document.

As noted above, this is one of the two Obligating Documents that the Grant Recipient shall execute and return within ninety (90) days after the Government's signature date. The second Obligating Document appears on the next page of this document.

Executed this _____ day of _____, 2023.

BY: **Grace Liu** Digitally signed by Grace Liu
Date: 2023.07.15 13:15:22
-07'00' **MP**
(Signature)

Grace I. Liu, JD
NAME

Associate Director, Sponsored Programs
TITLE

The Regents of the University of California, Davis
ORGANIZATION

Grant Obligations No. 69A3552344814 and No. 69A3552348319

Obligating Document 69A3552348319 AWARDING \$313,145

By executing this Obligating Document of the University Transportation Centers Program Umbrella Grant Agreement for a National UTC, the Grant Recipient:

- does hereby ratify and adopt, under penalties or perjury, all statements, representations, warranties, covenants, and materials submitted by it, and
- does hereby accept OST-R's award of Federal financial assistance and
- does hereby agree that all applicable terms and requirements of this University Transportation Centers Program Umbrella Grant Agreement for a National UTC shall apply to this Obligating Document.

As noted above, this is one of the two Obligating Documents that the Grant Recipient shall execute and return within ninety (90) days after the Government's signature date. The second Obligating Document appears on the previous page of this document.

Executed this _____ day of _____, 2023.

BY: Grace Liu
(Signature)

Digitally signed by Grace Liu
Date: 2023.07.15 13:15:22
-07'00'

MP

Grace I. Liu, JD

NAME

Associate Director, Sponsored Programs

TITLE

The Regents of the University of California, Davis

ORGANIZATION